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ABSTRACT OF THE DISCLOSURE

An in vitro culture system for the perpetuation of an unlimited number of neural progenitor cells. Progenitor cells are isolated from particular neural regions and proliferated in suspension cultures in the presence of growth factors. The progenitor cells can be induced to differentiate into neurons and glial cells. The ability to perpetuate fetal progenitor cells allows for production of a large supply of tissue from a minimal number of fetuses for transplantation into an animal with neurodegeneration. The use of juvenile and adult cells for generating progenitors would eliminate the need to obtain fetal tissue and may allow for patient to supply his own progenitors. Such an approach would eliminate the ethical problem of obtaining fetal neuronal tissue as well as the problem of tissue rejection and the required use of immunosuppressive drugs.